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September 18, 2013

Ms. Mary Aycock, SFD-8-1  
Remedial Project Manager Superfund Division  
U.S. Environmental Protection Agency, Region IX  
75 Hawthorne Street  
San Francisco, CA 94105

**Subject: Contract No. EP-W-07-066/ Task Order No. 066-017-09Q7 George Air Force Base, Review of the Final Basewide Annual Monitoring and Operations Report for CERCLA and Non-CERCLA Sites, George Air Force Base, Victorville, CA, May 2, 2013**

Dear Ms. Aycock:

This letter documents TechLaw's review of the Final Basewide Annual Monitoring and Operations Report for CERCLA and Non-CERCLA Sites, George Air Force Base, Victorville, CA, dated May 2, 2013 (Basewide Report).

As directed by EPA, TechLaw completed a cursory review which focused on determining whether concerns identified in the EPA review of the 2011 Basewide Report were addressed. As noted in TechLaw's December 2012 review of the Responses to EPA Review Comments on the Final 2011 Basewide Annual Monitoring and Operations Report for CERCLA and Non-CERCLA Sites, dated August 2012 (RTCs), several changes were proposed to be formally documented in the 2012 Basewide Report and therefore could not be addressed as part of the December 2012 review. Also per EPA direction, TechLaw has prepared a table (included below) that summarizes analytes, contaminant concentration trends, and operations/maintenance issues noted in the Basewide Report. As this was a cursory review, TechLaw reviewed the summary information presented in the main text of the Basewide Report in greater detail than the appendices. In addition, the review focused on CERCLA sites.

Based on a cursory review of the issues noted in EPA's review of the 2011 Basewide Report as well as TechLaw's December 2012 review of the RTCs, it appears that the historical comments have been addressed with the exception of a concern associated with chloroform. As noted in the RTCs, Specific Comment 15, future reports were to discuss the detections of chloroform. Section 4.4.2.5, Flood Plain Aquifer Results, identifies such a detection of chloroform, but the text does not discuss the source of this detection. A comment addressing this issue is included in the enclosed review.

The following table presents a summary of the sites included in the Basewide Report. It is noted that the Basewide Report includes a comprehensive summary of each site; the following table is intended as a brief synopsis of this information and does not fully capture the information presented in the Basewide Report.

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## Summary Table of 2012 Basewide Annual Monitoring

Operable Unit	Site(s)	Summary	Notes
OU 1	CG070	TCE plume in Upper and Lower Aquifers	Stable/decreasing TCE concentration trends. FFS completed, ROD Amendment pending.
OU 3	FT019a, FT019c	TCE plume, SVE; BTEX in deep soils	Stable/decreasing TCE concentrations trends downgradient of source area. Supplemental investigation of BTEX in soils proposed for 2013.
	ZZ051	TPH-g/BTEX removal since 2002, SVE	Benzene below 1 ug/L since 2002, removal and monitoring continues.
	OT069	TCE, cis-1,2-DCE, 1,1-DCA plume: portions increasing and decreasing	TCE and cis-1,2-DCE increased above MCL in several locations; ongoing monitoring recommended. Revision of monitoring well network to include wells with COCs detected in excess of MCLs is proposed (see Appendix I).
	DP003, DP004	Burial sites; soil cover installed 1996/1997. Annual cover inspections, groundwater sampling every five years.	DP004 erosion channels to be addressed in 2013.
	LF044	Landfill; surface debris removed, institutional controls added	TCE in groundwater related to OU1. Nitrate and TDS data exceed criteria; data to be collected annually to assess the landfill or other unit(s) as potential sources.
	LF012, LF014, SEDA	Disposal areas; soil cover rehabilitation completed in 1997. Annual groundwater sampling for LF012 and LF014, every five years for SEDA.	Erosion repairs for issues noted at each site scheduled for 2013. Annual sampling results will be used to assess potential for leakage from LF012 and LF014.
OU 5	FT082, SS083	SVE systems offline during 2012, pending supplemental investigation results.	Investigation results will support evaluation of current risks and to optimize SVE remedy.
Non-CERCLA	ST054	TPH recovery, SVE	Stable/declining trends in vapor and groundwater COC concentrations.
	ST057	TPH recovery, SVE	Stable/declining trends with exception of increase in well ST057EX-12.
	ST067b	JP-4, TPH-g recovery, SVE	Free-phase survey in 2012 indicated several new LNAPL detection; corrective action measures to be proposed for expanding LNAPL extent.
	OT071	Dieldrin in Upper/Lower Aquifers, monitoring	Within historical ranges/no discernible trends
	SS084	TPH-g, JP-4, MTBE recovery, SVE	2012 rebound study indicates declining COC concentration trend.
	SS030	LNAPL removal	Lateral extent and thickness decreased since 2006; dissolved benzene plume stable.

1,1-DCA=1,2-dichloroethane

BTEX= benzene, toluene, ethylbenzene, and xylene

CERCLA= Comprehensive Environmental Response, Compensation, and Liability Act

cis-1,2-DCE=cis-1,2-dichloroethene

COCs=constituents of concern

FFS=focused feasibility study

JP-4=jet propulsion-4

LNAPL=light non-aqueous phase liquid

MCL=maximum contaminant level

MTBE= methyl tertiary butyl ether

ROD=record of decision

SEDA=southeaster disposal area

SVE=soil vapor extraction

TDS=total dissolved solids

TCE=trichloroethene

TPH-g=total petroleum hydrocarbons - gasoline

ug/L=micrograms per Liter.

As noted in the table, above, several actions are pending. Based on information included in the RTCs as well as the 2012 Basewide Report, results of recent studies and development of follow-on actions (e.g., system optimization) will be presented in future Basewide Reports, decision documents and by other less formal means (e.g., BCT Meeting presentations, Technical Memoranda).

Also, the several specific comments were noted below:

1. **Section 4.4.2.5, Flood Plain Aquifer Results, page 4-7:** This section discusses several contaminant detections in groundwater samples, but, these results do not appear to be presented in an associated figure. Please include a figure that presents the data associated with the monitoring of the Floodplain Aquifer in future Basewide Reports.
2. **Appendix J, Response to Comments:** The response to EPA Specific Comment 15 indicates that detections of chloroform will be addressed in the text of Basewide Reports. As discussed in Sections 4.4.2.1, Upper Aquifer Results, 4.4.2.2, Lower Aquifer Results, and 4.4.2.5, Flood Plain Aquifer Results, chloroform was detected in several groundwater samples. While the chloroform detections are identified in the Basewide Report text, the cause of the detection (e.g., source) is not provided. Please revise the referenced sections to clarify the source of contamination. It is noted that information included in the response to EPA Specific Comment 15 (i.e., the presence of chloroform being attributed to aquifer recharge by chlorinated drinking water and wastewater) may be provided, where applicable, to address this concern.

This report has been forwarded to you through email in MS Word format. TechLaw looks forward to your additional input and understands that you will review and augment the report at your discretion.

TechLaw appreciates the opportunity to provide technical oversight services to the EPA on this project. Please contact Indira Balkissoon at (510) 290-2044, if you have any comments or questions regarding this review.

Sincerely,



Indira Balkissoon  
ROC9 Task Order Manager

MP/RV/MRP:IGB:KB:as

cc: TechLaw, Inc. Central Files